

IN THE CLAIMS:

This listing of claims will replace all prior versions, and listings, of claims in the application:

1. – 12. *(Cancelled).*

13. *(New)* A disk drive comprising:

a head having a giant magnetoresistive (GMR) read element which reads data from a disk medium and a write element which writes data to the disk medium;

an actuator mechanism on which the head is mounted and which moves to a specified position on the disk medium;

current supply units which supply a bias current and a write current to the GMR read element and the write element, respectively; and

a control unit which determines, on the basis of a resistance value of the GMR read element, an optimum bias and write currents required to successfully execute pinning reset on the GMR read element and which allows the optimum bias and write currents to be supplied to the head,

wherein, when a read error occurs during a read operation of reading data from the disk medium, the control unit causes the actuator mechanism to move the head to a specified position on the disk medium or outside the range of the disk medium and then causes the current supply units to supply the optimum bias and write currents to the head, and

wherein, if recovery from the read error fails, the control unit changes the bias current value to re-perform the read operation.

14. *(New)* A disk drive comprising:

a head having a giant magnetoresistive (GMR) read element which reads data from a disk medium and a write element which writes data to the disk medium;

an actuator mechanism on which the head is mounted and which moves to a specified position on the disk medium;

current supply units which supply a bias current and a write current to the GMR read element and the write element, respectively; and

a control unit which determines, on the basis of a resistance value of the GMR read element, an optimum bias and write currents required to successfully execute pinning reset on the GMR read element and which allows the optimum bias and write currents to be supplied to the head,

wherein, when a read error occurs during a read operation of reading data from the disk medium, if recovery from the read error fails even though a read retry operation is performed, the control unit causes the actuator mechanism to move the head to a specified position on the disk medium or outside the range of the disk medium and then causes the current supply units to supply the optimum bias and write currents to the head, and

wherein, if recovery from the read error fails, changes the bias current value to re-perform a read operation.

15. (New) A method of read error recovery in a disk drive including a disk medium and a head which has a GMR read element and a write element, the method comprising:

using the GMR read element to perform a read operation of reading data from the disk medium and then determining whether or not a read error has occurred;

moving the head to a specified position on the disk medium or outside the range of the disk medium, when the read error occurs; and

determining an optimum bias and write currents required to successfully execute pinning reset of the GMR read element based on a resistance value of the GMR read element;

supplying the optimum bias and write currents to the GMR read element and the write element, respectively;

changing the bias current value, if recovery from the read error fails after the optimum bias and write currents have been supplied; and

re-performing a read operation based on the changed bias current value.